

CLAIMS

1. Method for retrieving a replica of an electronic document in a computer network, comprising:
 - selecting at least one replica number,
 - by applying a given function, the function requiring the replica number and a document identifier as input: determining at least one entity identifier, each entity identifier representing an entity in the network that might provide the replica,
 - addressing a document related request to at least one of the identified entities.
2. Method according to claim 1, comprising
 - selecting $k = N$ replica numbers, wherein N is a maximum number for replicas,
 - by applying the given function k times: determining k entity identifiers.
3. Method according to claim 1, comprising
 - selecting k replica numbers from a maximum number of N replicas with $k < N$,
 - by applying the given function k times: determining k entity identifiers.
4. Method according to claim 3,
wherein $k \leq 5$.
5. Method according to claim 3,
wherein $k = 1$.
6. Method according to any one of the preceding claims, comprising
addressing the document related request to all identified entities.
7. Method according to any one of the preceding claims 1 to 4, comprising
addressing the document related request to only selected ones of the identified entities.
8. Method according to any one of the preceding claims 1 to 4, comprising

addressing the document related request only to one entity selected from the identified entities.

9. Method according to any one of the preceding claims 1 to 5, comprising calculating a cost function for each of the k entities, the cost function providing a cost value as result which indicates a cost to address the relevant entity.

10. Method according to claim 9 in combination with claim 7 or claim 8, wherein each entity to be addressed is selected from the identified entities due to the associated cost value.

11. Method according to claim 10, wherein the addressed entity/entities is/are the one/s showing the lowest cost value/s.

12. Method according to claim 6 or claim 7, wherein cost values for the addressed entities are derived from communication with these entities.

13. Method according to claim 6 or claim 7, wherein cost values for the addressed entities are derived from a cost database.

14. Method according to any one of the preceding claims, wherein upon receiving a "replica not available" response from each of the addressed entities, another entity is selected from the identified entities for addressing the document related request to.

15. Method according to claim 14, wherein the other entity is selected from the identified entities by choosing an entity with an associated replica number that is lower than the replica number associated to the entity/entities the previous request was addressed to

16. Method according to any one of the preceding claims,

wherein upon any indication from the addressed entity/entities that neither the replica is not available nor the replica is available there, another entity is selected from the identified entities for addressing the document related request to.

17. Method according to claim 16,

wherein the other entity is selected due to an associated cost value.

18. Method according to any one of the claims 1 to 4, comprising

- selecting from the identified entities at least one most preferred entity, and
- addressing the document related request to each most preferred entity.

19. Method according to claim 18,

wherein each most preferred entity is selected according to its distance from the retrieving entity.

20. Method according to claim 19,

wherein the distance of an entity is derived from the associated entity identifier.

21. Method according to any one of the preceding claims 18 to 20,

wherein upon receiving a "replica not available" message from the addressed entity, at least one other entity is selected from a set of identified entities as a second best preferred entity for addressing the document related request to, this set of identified entities being limited to entities with corresponding replica numbers lower than the replica number that is associated to the most preferred entity identifier.

22. Method according to claim 19,

wherein the second preferred entity is selected from the set of identified entities according to its distance from the retrieving entity, wherein the closest distance is derived from the associated entity identifier.

23. A computer program element comprising computer program code means which, when loaded in a processor unit of a computing entity, configures the processor unit to perform a method as claimed in any one of the preceding claims.

24. Computing entity for retrieving a replica of an electronic document in a computer network, comprising
a control unit designed to perform a method according to any one of the claims 1 to 22.

25. Method for depositing a replica of an electronic document in a computer network,
• selecting a replica number,
• by applying a given function, the function requiring the replica number and a document identifier as input: determining an entity identifier, the entity identifier representing an entity in the network,
• addressing the identified entity for replica depositing purposes.

26. A computer program element comprising computer program code means which, when loaded in a processor unit of a computing entity, configures the processor unit to perform a method as claimed in any one of the preceding claim 25.

27. Computing entity for depositing a replica of an electronic document in a computer network, comprising
a control unit designed to perform a method according to claim 25.